

METHOD FOR REMOVAL OF A SPACER

ABSTRACT

[0042] The present disclosure provides a method and system for removing a spacer, such as associated with a processing operation using a lightly doped drain (LDD) region. The method includes defining an electrode on a substrate, forming a spacer adjacent to at least one sidewall of the electrode, and performing a processing operation on the substrate. The processing operation, which can be an ion implantation process, can use the spacer as a mask, and as a result can create a layer, such as a polymer, on the spacer. The spacer can then be removed by applying a first dry etch process to remove the layer on the spacer and a second wet etch process to remove the spacer. The first dry etch utilizes a fluorine-contained plasma, such as one that uses a CF_4 , CHF_3 , CH_2F_2 , or CH_3F etchant. A third wet etch process can be used to remove an oxide layer underlying the spacer.